

waxes and cosmetics or dermatological active agents.

28. A process for the antimicrobial protection of a composition containing an aqueous dispersion of film-forming polymer particles, the process consisting of introducing into the composition an antimicrobial protection system comprising 1,2-pentanediol.

29. A cosmetic or dermatological composition which can be applied to any one of the skin, keratin fibres, semi-mucous membranes and mucous membranes, consisting essentially of an aqueous dispersion of film-forming polymer particles combined with an antimicrobial protection system comprising 1,2-pentanediol.

. . . is in the form of a make-up composition, a care composition, an antisun or self-tanning composition or a dermatological or pharmaceutical composition, to be applied to the skin, keratin fibres, semi-mucous membranes or mucous membranes.

33. The composition according to claim 29 wherein the film-forming polymer is selected from the group consisting of anionic polyurethanes, cationic polyurethanes, nonionic polyurethanes, amphoteric polyurethanes, acrylic polyurethanes, polyurethane-polyvinylpyrrolidones, polyester-polyurethanes, polyether-polyurethanes, polyureas, polyurea-polyurethanes, polyesters, polyesteramides, fatty-chain polyesters, polyamides, epoxy ester resins, acrylic polymers and copolymers, vinyl polymers and copolymers, acrylic/vinyl copolymers, acrylic/silicone copolymers, nitrocellulose/acrylic copolymers, polymers of natural origin, which are optionally modified, polymers resulting from the radical polymerization of one or more radical monomers, inside and/or partially at the surface of pre-existing particles of at least one polymer selected from the group consisting of polyurethanes, polyureas, polyesters, polyesteramides and alkyds, and mixtures thereof.

34. The composition according to claim 33, wherein the film-forming polymer is selected from vinyl polymers and copolymers, acrylic polymers and copolymers and vinyl /acrylic copolymers.

38. The composition according to claim 29, further comprising at least one of a water-soluble dye, a pigment, a filler and a pearlescent agent.

. . further comprising at least one additive selected from the group consisting of thickeners, dispersing agents, antifoaming gents, oils, waxes and cosmetic or dermatological active agents.

. . is in the form of a make-up composition, a care composition, an antisun or self-tanning composition or a dermatological or pharmaceutical composition, to be applied to the skin, keratin fibres, semi-mucous membranes or mucous membranes.

43. The composition according to claim 23 wherein the film-forming polymer is selected from the group consisting of anionic polyurethanes, cationic polyurethanes, nonionic polyurethanes, amphoteric polyurethanes, acrylic polyurethanes polyurethane-polyvinylpyrrolidones, polyester-polyurethanes, polyether-polyurethanes, polyureas, polyurea-polyurethanes, polyesters, polyesteramides, fatty-chain polyesters, polyamides, epoxy ester resins, acrylic polymers and copolymers, vinyl polymers and copolymers, acrylic/vinyl copolymers, acrylic/silicone

copolymers, nitrocellulose/acrylic copolymers, polymers of natural origin, which are optionally modified, polymers resulting from the radical polymerization of one or more radical monomers, inside and/or partially at the surface of pre-existing particles of at least one polymer selected from the group consisting of polyurethanes, polyureas, polyesters, polyesteramides and alkyds, and mixtures thereof.

44. The composition according to claim 43, wherein the film-forming polymer is selected from vinyl polymers and copolymers, acrylic polymers and copolymers and vinyl /acrylic copolymers.

48. The composition according to claim 23, further comprising at least one of a water-soluble dye, a pigment, a filler and a pearlescent agent.

. . . further comprising at least one additive selected from the group consisting of thickeners, dispersing agents, antifoaming agents, oilx, waxes and cosmetic or dermatological active agents.

=> d his

(FILE 'HOME' ENTERED AT 09:43:25 ON 29 SEP 2003)

FILE 'USPATFULL' ENTERED AT 09:43:59 ON 29 SEP 2003

L1 388649 S FILM(P) FORM?
L2 16148 S VINYL POLYMER?
L3 220652 S COSMETIC? OR ANTIMICROBIAL? OR PHARMACEUTICAL?
L4 153778 S WATER SOLUBLE OR WATER-SOLUBLE
L5 7747 S L1 AND L2
L6 1171 S L3 AND L5
L7 671 S L4 AND L6
L8 101 S WATER SOLUBLE(P) AMINE?(P) VINYL POLYMER?
L9 5 S L7 AND L8
L10 2533 S VINYL POLYMER?/CLM
L11 11550 S FILM FORMING?/CLM OR FILM-FORMING?/CLM
L12 176 S L10 AND L11
L13 76 S L12 AND L3
L14 51 S L13 AND L4
L15 258408 S AMINE?
L16 43 S L14 AND L15
L17 85587 S IODINE? OR IDOPHOR?
L18 85724 S IODINE? OR IODOPHOR?
L19 7 S L16 AND L18
L20 141099 S SURFACTANT?
L21 5 S L19 AND L20
L22 10963 S DRY FILM?
L23 0 S L21 AND L22
L24 605509 S FILM?
L25 1186 S FILM FORM?/TI OR FILM-FORM?/TI
L26 20 S L25 AND L10
L27 1 S L26 AND L18
L28 0 S L27 AND L20
L29 28268 S VINYL(P) POLYMER?/CLM
L30 97 S L29 AND L25
L31 0 S L30 AND L8
L32 44 S L30 AND L3
L33 33 S L32 AND L4
L34 29 S L33 AND L15

10/052,158

L35 23 S L34 AND L20
L36 0 S L18 AND L35
L37 89669 S IODOPHOR OR IODINE OR CHLORHEXIDINE OR TRICLOSAN OR OCTENIDIN
L38 89671 S IODOPHOR OR IODINE OR CHLORHEXIDINE OR TRICLOSAN OR OCTENIDIN
L39 1 S L38 AND L35

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 25 Sep 2003 (20030925/PD)
FILE LAST UPDATED: 25 Sep 2003 (20030925/ED)
HIGHEST GRANTED PATENT NUMBER: US6625813
HIGHEST APPLICATION PUBLICATION NUMBER: US2003182703
CA INDEXING IS CURRENT THROUGH 25 Sep 2003 (20030925/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 25 Sep 2003 (20030925/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Aug 2003
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Aug 2003

>>> USPAT2 is now available. USPATFULL contains full text of the <<<
>>> original, i.e., the earliest published granted patents or <<<
>>> applications. USPAT2 contains full text of the latest US <<<
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>>> publications. The publication number, patent kind code, and <<<
>>> publication date for all the US publications for an invention <<<
>>> are displayed in the PI (Patent Information) field of USPATFULL <<<
>>> records and may be searched in standard search fields, e.g., /PN, <<<
>>> /PK, etc. <<<

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>>> through the new cluster USPATALL. Type FILE USPATALL to <<<
>>> enter this cluster. <<<
>>> <<<
>>> Use USPATALL when searching terms such as patent assignees, <<<
>>> classifications, or claims, that may potentially change from <<<
>>> the earliest to the latest publication. <<<

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s water soluble?(p)vinyl polymer?(p)amine?
1063068 WATER
325836 SOLUBLE?
153886 WATER SOLUBLE?
 (WATER(W) SOLUBLE?)
229565 VINYL
570773 POLYMER?
16148 VINYL POLYMER?
 (VINYL(W) POLYMER?)
258408 AMINE?
L1 101 WATER SOLUBLE?(P)VINYL POLYMER?(P)AMINE?

=> s film-form?/ti or film form?/ti
31615 FILM/TI
81447 FORM?/TI
1186 FILM-FORM?/TI
 ((FILM(W) FORM?)/TI)
31615 FILM/TI
81447 FORM?/TI
1186 FILM FORM?/TI
 ((FILM(W) FORM?)/TI)
L2 1186 FILM-FORM?/TI OR FILM FORM?/TI

=> s film-form? or film form?
567948 FILM
3200195 FORM?
102162 FILM-FORM?
 (FILM(W) FORM?)
567948 FILM

10/052,158

3200195 FORM?
102162 FILM FORM?
(FILM(W) FORM?)
L3 102162 FILM-FORM? OR FILM FORM?

=> s water?
L4 1085194 WATER?

=> s amphoteric surfactant?
22843 AMPHOTERIC
141099 SURFACTANT?
L5 8978 AMPHOTERIC SURFACTANT?
(AMPHOTERIC (W) SURFACTANT?)

=> s l1 and l2
L6 0 L1 AND L2

=> s l1 and l3
L7 31 L1 AND L3

=> s l7 and l5
L8 1 L7 AND L5

=> s l8 and l1
L9 1 L8 AND L1

=> d ibib abs

L9 ANSWER 1 OF 1 USPATFULL on STN
ACCESSION NUMBER: 2003:92687 USPATFULL
TITLE: Cosmetic compositions containing water-soluble polymer complexes
INVENTOR(S): Chen, Shih-Ruey T., Pittsburgh, PA, UNITED STATES
DeVito, Valentino L., Pittsburgh, PA, UNITED STATES
Frederick, Kevin W., Evans City, PA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003064044	A1	20030403
APPLICATION INFO.:	US 2002-122750	A1	20020415 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-284043P	20010416 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Gary F. Matz, Webb Ziesenhein Logsdon Orkin & Hanson, P.C., 700 Koppers Building, 436 Seventh Avenue, Pittsburgh, PA, 15219-1818	
NUMBER OF CLAIMS:	51	
EXEMPLARY CLAIM:	1	
LINE COUNT:	2174	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A composition for treating a keratin based substrate that includes a cosmetically acceptable medium containing a water-soluble interjacent complex. The water-soluble interjacent complex includes a first water-soluble polymer and a second water-soluble polymer formed by polymerizing one or more water-soluble monomers in the presence of the first water-soluble polymer. The water-soluble interjacent complex is characterized in that it forms a solution in water that is free of insoluble polymer particles. The water-soluble interjacent complex is used in a method of treating a keratin based substrate, whereby a

10/052,158

cosmetically acceptable medium is applied to the substrate and contains from 0.1-20% by weight of the water-soluble interjacent complex.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

10/052, 158

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NEWS 4 Jul 15 Data from 1960-1976 added to RDISCLOSURE
NEWS 5 Jul 21 Identification of STN records implemented
NEWS 6 Jul 21 Polymer class term count added to REGISTRY
NEWS 7 Jul 22 INPADOC: Basic index (/BI) enhanced; Simultaneous Left and Right Truncation available
NEWS 8 AUG 05 New pricing for EUROPATFULL and PCTFULL effective August 1, 2003
NEWS 9 AUG 13 Field Availability (/FA) field enhanced in BEILSTEIN
NEWS 10 AUG 15 PATDPAFULL: one FREE connect hour, per account, in September 2003
NEWS 11 AUG 15 PCTGEN: one FREE connect hour, per account, in September 2003
NEWS 12 AUG 15 RDISCLOSURE: one FREE connect hour, per account, in September 2003
NEWS 13 AUG 15 TEMA: one FREE connect hour, per account, in September 2003
NEWS 14 AUG 18 Data available for download as a PDF in RDISCLOSURE
NEWS 15 AUG 18 Simultaneous left and right truncation added to PASCAL
NEWS 16 AUG 18 FROSTI and KOSMET enhanced with Simultaneous Left and Right Truncation
NEWS 17 AUG 18 Simultaneous left and right truncation added to ANABSTR
NEWS 18 SEP 22 DIPPR file reloaded
NEWS 19 SEP 25 INPADOC: Legal Status data to be reloaded

NEWS EXPRESS April 4 CURRENT WINDOWS VERSION IS V6.01a, CURRENT MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP), AND CURRENT DISCOVER FILE IS DATED 01 APRIL 2003

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10/052, 158

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FILE COVERS 1971 TO PATENT PUBLICATION DATE: 25 Sep 2003 (20030925/PD)
FILE LAST UPDATED: 25 Sep 2003 (20030925/ED)
HIGHEST GRANTED PATENT NUMBER: US6625813
HIGHEST APPLICATION PUBLICATION NUMBER: US2003182703
CA INDEXING IS CURRENT THROUGH 25 Sep 2003 (20030925/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 25 Sep 2003 (20030925/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Aug 2003
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Aug 2003

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>>> original, i.e., the earliest published granted patents or
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>>> Use USPATALL when searching terms such as patent assignees,
>>> classifications, or claims, that may potentially change from
>>> the earliest to the latest publication.

This file contains CAS Registry Numbers for easy and accurate substance identification.

```
=> s film(p) form?  
      567948 FILM  
      3200195 FORM?  
L1      388649 FILM(P) FORM
```

=> S VINYL POLYMER?
229565 VINYL
570773 POLYMER?
L2 16148 VINYL POLYMER?
 (VINYL (W) POLYMER?)

```
=> s cosmetic? or antimicrobial? or pharmaceutical?  
        49716 COSMETIC?  
        28072 ANTIMICROBIAL?  
        176843 PHARMACEUTICAL?  
L3      220652 COSMETIC? OR ANTIMICROBIAL? OR PHARMACEUTICAL?
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=> s water soluble or water-soluble

10/052,158

1063068 WATER
324847 SOLUBLE
153778 WATER SOLUBLE
(WATER (W) SOLUBLE)

1063068 WATER
324847 SOLUBLE
153778 WATER-SOLUBLE
(WATER (W) SOLUBLE)

L4 153778 WATER SOLUBLE OR WATER-SOLUBLE

=> s 11 and 12
L5 7747 L1 AND L2

=> s 13 and 15
L6 1171 L3 AND L5

=> s 14 and 16
L7 671 L4 AND L6

=> s water soluble(p) amine?(p) vinyl polymer?

1063068 WATER
324847 SOLUBLE
153778 WATER SOLUBLE
(WATER (W) SOLUBLE)
258408 AMINE?
229565 VINYL
570773 POLYMER?
16148 VINYL POLYMER?
(VINYL (W) POLYMER?)

L8 101 WATER SOLUBLE(P) AMINE?(P) VINYL POLYMER?

=> s 17 and 18
L9 5 L7 AND L8

=> d 1-5 ibib abs

L9 ANSWER 1 OF 5 USPATFULL on STN

ACCESSION NUMBER: 2003:214447 USPATFULL
TITLE: Compositions for the treatment of infectious diseases
INVENTOR(S): Gehlsen, Kurt R., Encinitas, CA, UNITED STATES
Hellstrand, Kristoffer, Gotegorg, SWEDEN

| | NUMBER | KIND | DATE |
|---------------------|----------------|------|---------------|
| PATENT INFORMATION: | US 2003149090 | A1 | 20030807 |
| APPLICATION INFO.: | US 2002-289530 | A1 | 20021105 (10) |

| | NUMBER | DATE |
|--|---|---------------|
| PRIORITY INFORMATION: | US 2001-338878P | 20011106 (60) |
| DOCUMENT TYPE: | Utility | |
| FILE SEGMENT: | APPLICATION | |
| LEGAL REPRESENTATIVE: | KNOBBE MARTENS OLSON & BEAR LLP, 2040 MAIN STREET,
FOURTEENTH FLOOR, IRVINE, CA, 92614 | |
| NUMBER OF CLAIMS: | 20 | |
| EXEMPLARY CLAIM: | 1 | |
| LINE COUNT: | 2214 | |
| CAS INDEXING IS AVAILABLE FOR THIS PATENT. | | |
| AB | Described herein are compositions and methods for the treatment of microbial infection. | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

10/052,158

L9 ANSWER 2 OF 5 USPATFULL on STN
ACCESSION NUMBER: 2003:92687 USPATFULL
TITLE: Cosmetic compositions containing
water-soluble polymer complexes
INVENTOR(S): Chen, Shih-Ruey T., Pittsburgh, PA, UNITED STATES
DeVito, Valentino L., Pittsburgh, PA, UNITED STATES
Frederick, Kevin W., Evans City, PA, UNITED STATES

| | NUMBER | KIND | DATE |
|---------------------|----------------|------|---------------|
| PATENT INFORMATION: | US 2003064044 | A1 | 20030403 |
| APPLICATION INFO.: | US 2002-122750 | A1 | 20020415 (10) |

| | NUMBER | DATE |
|-----------------------|--|---------------|
| PRIORITY INFORMATION: | US 2001-284043P | 20010416 (60) |
| DOCUMENT TYPE: | Utility | |
| FILE SEGMENT: | APPLICATION | |
| LEGAL REPRESENTATIVE: | Gary F. Matz, Webb Ziesenhein Logsdon Orkin & Hanson,
P.C., 700 Koppers Building, 436 Seventh Avenue,
Pittsburgh, PA, 15219-1818 | |
| NUMBER OF CLAIMS: | 51 | |
| EXEMPLARY CLAIM: | 1 | |
| LINE COUNT: | 2174 | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A composition for treating a keratin based substrate that includes a cosmetically acceptable medium containing a water-soluble interjacent complex. The water-soluble interjacent complex includes a first water-soluble polymer and a second water-soluble polymer formed by polymerizing one or more water-soluble monomers in the presence of the first water-soluble polymer. The water-soluble interjacent complex is characterized in that it forms a solution in water that is free of insoluble polymer particles. The water-soluble interjacent complex is used in a method of treating a keratin based substrate, whereby a cosmetically acceptable medium is applied to the substrate and contains from 0.1-20% by weight of the water-soluble interjacent complex.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 3 OF 5 USPATFULL on STN
ACCESSION NUMBER: 2002:179209 USPATFULL
TITLE: Methods and compositions for topical treatment of damaged tissue using reactive oxygen metabolite production or release inhibitors
INVENTOR(S): Gehlsen, Kurt R., Encinitas, CA, UNITED STATES

| | NUMBER | KIND | DATE |
|-----------------------|--|------|---------------|
| PATENT INFORMATION: | US 2002095001 | A1 | 20020718 |
| APPLICATION INFO.: | US 2002-68447 | A1 | 20020206 (10) |
| RELATED APPLN. INFO.: | Continuation of Ser. No. US 2001-765929, filed on 19 Jan 2001, GRANTED, Pat. No. US 6350785 Division of Ser. No. US 1999-227801, filed on 8 Jan 1999, GRANTED, Pat. No. US 6270781 | | |
| DOCUMENT TYPE: | Utility | | |
| FILE SEGMENT: | APPLICATION | | |
| LEGAL REPRESENTATIVE: | KNOBBE MARLENS OLSON & BEAR LLP, 620 NEWPORT CENTER DRIVE, SIXTEENTH FLOOR, NEWPORT BEACH, CA, 92660 | | |

10/052,158

NUMBER OF CLAIMS: 24
EXEMPLARY CLAIM: 1
LINE COUNT: 1282

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to compositions and methods for treating cell damage caused by reactive oxygen species in relation to a variety of skin disorders. More specifically, the present invention relates to the treatment skin disorders through the topical delivery of reactive oxygen metabolite production or release inhibiting compounds.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 4 OF 5 USPATFULL on STN

ACCESSION NUMBER: 2001:144924 USPATFULL
TITLE: Methods and compositions for topical treatment of damaged tissue using reactive oxygen metabolite production or release inhibitors
INVENTOR(S): Gehlsen, Kurt R., Encinitas, CA, United States

| | NUMBER | KIND | DATE |
|-----------------------|--|------|--------------|
| PATENT INFORMATION: | US 2001018059 | A1 | 20010830 |
| | US 6350785 | B2 | 20020226 |
| APPLICATION INFO.: | US 2001-765929 | A1 | 20010119 (9) |
| RELATED APPLN. INFO.: | Division of Ser. No. US 1999-227801, filed on 8 Jan 1999, PENDING | | |
| DOCUMENT TYPE: | Utility | | |
| FILE SEGMENT: | APPLICATION | | |
| LEGAL REPRESENTATIVE: | KNOBBE MARTENS OLSON & BEAR LLP, 620 NEWPORT CENTER DRIVE, SIXTEENTH FLOOR, NEWPORT BEACH, CA, 92660 | | |
| NUMBER OF CLAIMS: | 24 | | |
| EXEMPLARY CLAIM: | 1 | | |
| LINE COUNT: | 1273 | | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to compositions and methods for treating cell damage caused by reactive oxygen species in relation to a variety of skin disorders. More specifically, the present invention relates to the treatment skin disorders through the topical delivery of reactive oxygen metabolite production or release inhibiting compounds.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 5 OF 5 USPATFULL on STN

ACCESSION NUMBER: 2001:125567 USPATFULL
TITLE: Method and compositions for topical treatment of damaged tissue using reactive oxygen metabolite production or release inhibitors
INVENTOR(S): Gehlsen, Kurt R., Encinitas, CA, United States
PATENT ASSIGNEE(S): Maxim Pharmaceuticals, Inc., San Diego, CA, United States (U.S. corporation)

| | NUMBER | KIND | DATE |
|-----------------------|------------------------------------|------|--------------|
| PATENT INFORMATION: | US 6270781 | B1 | 20010807 |
| APPLICATION INFO.: | US 1999-227801 | | 19990108 (9) |
| DOCUMENT TYPE: | Utility | | |
| FILE SEGMENT: | GRANTED | | |
| PRIMARY EXAMINER: | Williamson, Michael A. | | |
| LEGAL REPRESENTATIVE: | Knobbe, Martens, Olson & Bear, LLP | | |
| NUMBER OF CLAIMS: | 9 | | |
| EXEMPLARY CLAIM: | 1 | | |
| LINE COUNT: | 1218 | | |

10/052,158

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to compositions and methods for treating cell damage caused by reactive oxygen species in relation to a variety of skin disorders. More specifically, the present invention relates to the treatment skin disorders through the topical delivery of reactive oxygen metabolite production or release inhibiting compounds.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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L5 7747 S L1 AND L2
L6 1171 S L3 AND L5
L7 671 S L4 AND L6
L8 101 S WATER SOLUBLE(P) AMINE? (P) VINYL POLYMER?
L9 5 S L7 AND L8

=> s vinyl polymer?/clm

58502 VINYL/CLM
210440 POLYMER?/CLM
L10 2533 VINYL POLYMER?/CLM
((VINYL(W) POLYMER?)/CLM)

=> s film forming?/clm or film-forming?/clm

168703 FILM/CLM
625915 FORMING?/CLM
11550 FILM FORMING?/CLM
((FILM(W) FORMING?)/CLM)
168703 FILM/CLM
625915 FORMING?/CLM
11550 FILM-FORMING?/CLM
((FILM(W) FORMING?)/CLM)
L11 11550 FILM FORMING?/CLM OR FILM-FORMING?/CLM

=> s l10 and l11

L12 176 L10 AND L11

=> s l12 and l3

L13 76 L12 AND L3

=> s l13 and l4

L14 51 L13 AND L4

=> s amine?

L15 258408 AMINE?

=> s l14 and l15

L16 43 L14 AND L15

=> s iodine? or idophor?

85581 IODINE?
21 IDOPHOR?
L17 85587 IODINE? OR IDOPHOR?

10/052,158

=> s iodine? or iodophor?

85581 IODINE?

676 IODOPHOR?

L18 85724 IODINE? OR IODOPHOR?

=> s l16 and l18

L19 7 L16 AND L18

=> s surfactant?

L20 141099 SURFACTANT?

=> s l19 and l20

L21 5 L19 AND L20

=> s dry film?

468436 DRY

605509 FILM?

L22 10963 DRY FILM?

(DRY(W) FILM?)

=> s l21 and l22

L23 0 L21 AND L22

=> s film?

L24 605509 FILM?

=> d l21 1-5 ibib abs

L21 ANSWER 1 OF 5 USPATFULL on STN

ACCESSION NUMBER: 2003:214463 USPATFULL

TITLE: Water-in-oil emulsions with ethylene oxide groups, compositions, and methods

INVENTOR(S): Mosbey, Deral T., Lake Elmo, MN, UNITED STATES
Eian, Gilbert L., Mahtomedi, MN, UNITED STATES
Scholz, Matthew T., Woodbury, MN, UNITED STATES
Mallo, Richard A., Woodbury, MN, UNITED STATES
Lu, Ling, Woodbury, MN, UNITED STATES

PATENT ASSIGNEE(S): 3M Innovative Properties Company (U.S. corporation)

| NUMBER | KIND | DATE |
|--------|------|------|
|--------|------|------|

PATENT INFORMATION: US 2003149106 A1 20030807

APPLICATION INFO.: US 2001-966511 A1 20010928 (9)

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: Doreen S. L. Gwin, 3M Innovative Properties Company,
Office of Intellectual Property Counsel, P.O. Box
33427, St. Paul, MN, 55133-3427

NUMBER OF CLAIMS: 65

EXEMPLARY CLAIM: 1

LINE COUNT: 1924

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Water-in-oil emulsions, compositions, and methods that include a vinyl polymer that includes ethylene oxide-containing side chains and alkyl-Y-containing side chains, wherein Y is O or NR, wherein R is H or CH₃, and wherein the alkyl group of the alkyl-Y-containing side chain has at least 4 carbon atoms on average in a cyclic, branched-, or straight-chain configuration and optionally including one or more heteroatoms.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

10/052,158

L21 ANSWER 2 OF 5 USPATFULL on STN

ACCESSION NUMBER: 2003:172785 USPATFULL
TITLE: Water-in-oil emulsions with anionic groups,
compositions, and methods
INVENTOR(S): Scholz, Matthew T., Woodbury, MN, UNITED STATES
Eian, Gilbert L., Mahtomedi, MN, UNITED STATES
Lu, Ling, Woodbury, MN, UNITED STATES
PATENT ASSIGNEE(S): 3M Innovative Properties Company (U.S. corporation)

| | NUMBER | KIND | DATE |
|--|--|------|--------------|
| PATENT INFORMATION: | US 2003118629 | A1 | 20030626 |
| APPLICATION INFO.: | US 2001-967578 | A1 | 20010928 (9) |
| DOCUMENT TYPE: | Utility | | |
| FILE SEGMENT: | APPLICATION | | |
| LEGAL REPRESENTATIVE: | John A. Burtis, 3M Innovative Properties Company,
Office of Intellectual Property Counsel, P.O Box 33427,
St. Paul, MN, 55133-3427 | | |
| NUMBER OF CLAIMS: | 62 | | |
| EXEMPLARY CLAIM: | 1 | | |
| LINE COUNT: | 1697 | | |
| CAS INDEXING IS AVAILABLE FOR THIS PATENT. | | | |
| AB | Water-in-oil emulsions, compositions, and methods that include a vinyl polymer having a pKa of less than 4 that includes anionic group-containing side chains and alkyl-Y-containing side chains, wherein Y is O or NR, wherein R is hydrogen or methyl, and wherein the alkyl group of the alkyl-Y-containing side chain has at least 4 carbon atoms on average in a cyclic, branched-, or straight-chain configuration and optionally including one or more heteroatoms. | | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L21 ANSWER 3 OF 5 USPATFULL on STN

ACCESSION NUMBER: 82:21579 USPATFULL
TITLE: Process for preparing propellant compositions forming foamed structures containing open and/or closed cells
INVENTOR(S): Osipow, Lloyd I., New York, NY, United States
Spitzer, J. George, Palm Beach, FL, United States
PATENT ASSIGNEE(S): Restech Research Limited Partnership, New York, NY, United States (U.S. corporation)

| | NUMBER | KIND | DATE |
|--|--|------|--------------|
| PATENT INFORMATION: | US 4328319 | | 19820504 |
| APPLICATION INFO.: | US 1980-200665 | | 19801027 (6) |
| DOCUMENT TYPE: | Utility | | |
| FILE SEGMENT: | Granted | | |
| PRIMARY EXAMINER: | Foelak, Morton | | |
| NUMBER OF CLAIMS: | 36 | | |
| EXEMPLARY CLAIM: | 1 | | |
| LINE COUNT: | 1134 | | |
| CAS INDEXING IS AVAILABLE FOR THIS PATENT. | | | |
| AB | A process is provided for preparing propellant compositions including a film-forming synthetic polymer that are capable of forming foamed structures containing open and/or closed cells, which may optionally contain a material which is deposited in the pores and/or walls of the structure as the structure is formed, which comprises coating the synthetic polymer in particulate form with an inert solid material insoluble in the propellant and in solutions of the synthetic resin the propellant at atmospheric temperature; and then adding the propellant and dissolving the synthetic polymer in the propellant. The process is of particular application for preparing such synthetic | | |

polymer-propellant compositions in situ in closed containers capable of withstanding an internal pressure sufficient to keep the propellant in the liquid phase at atmospheric temperature, and when the composition is withdrawn from the container to atmospheric pressure, the propellant volatilizes rapidly and a foamed structure is formed within a few seconds.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L21 ANSWER 4 OF 5 USPATFULL on STN

ACCESSION NUMBER: 75:54468 USPATFULL
 TITLE: Emulsified propellant compositions for foamed structures such as applicator pads, and process
 INVENTOR(S): Spitzer, Joseph George, 722 Cove Road, Mamaroneck, NY, United States 10543
 Small, Marvin, 1100 Park Ave., New York, NY, United States 10028
 Osipow, Lloyd I., 2 Fifth Ave., New York, NY, United States 10011
 Marra, Dorethea C., 107 Fernwood Road, Summit, NJ, United States 07901

| | NUMBER | KIND | DATE |
|-----------------------|---|------|--------------|
| PATENT INFORMATION: | US 3912666 | | 19751014 |
| APPLICATION INFO.: | US 1973-366939 | | 19730604 (5) |
| DISCLAIMER DATE: | 19921014 | | |
| RELATED APPLN. INFO.: | Continuation-in-part of Ser. No. US 1971-166960, filed on 28 Jul 1971, now abandoned And a continuation-in-part of Ser. No. US 1970-5150, filed on 22 Jan 1970, now abandoned And a continuation-in-part of Ser. No. US 1969-797257, filed on 6 Feb 1969, now abandoned | | |
| DOCUMENT TYPE: | Utility | | |
| FILE SEGMENT: | Granted | | |
| PRIMARY EXAMINER: | Foelak, Morton | | |
| NUMBER OF CLAIMS: | 45 | | |
| EXEMPLARY CLAIM: | 1 | | |
| LINE COUNT: | 1386 | | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Foam structures such as applicator pads for cleaning and other purposes are provided, that are formed from emulsified propellant compositions including a synthetic polymer in solution in a low boiling propellant and dispersed in an oil-in-water emulsion. Such compositions quickly form foamed structures containing open and/or closed cells at atmospheric temperature and pressure. The structures and propellant compositions include a material which is deposited in the pores and/or cells of the structure as the structure is formed, and which can be removed from the structure when desired. These structures are particularly suitable for use as applicator pads having a porous surface with a high proportion of open area, with a material such as a cosmetic, pharmaceutical, detergent, anti-microbial agent or abrasive which is contained in the pores thereof, and which can be removed.

The emulsified propellant compositions are stored in closed containers capable of withstanding an internal pressure sufficient to keep the propellant in the liquid phase at atmospheric temperature, and when the composition is withdrawn from the container to atmospheric pressure, the propellant volatilizes rapidly, and the foamed structure is formed within a few seconds.

10/052,158

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L21 ANSWER 5 OF 5 USPATFULL on STN
ACCESSION NUMBER: 75:54467 USPATFULL
TITLE: Emulsified propellant compositions for foamed structures such as applicator pads, and process
INVENTOR(S): Spitzer, Joseph George, 722 Cove Road East, Mamaroneck, NY, United States 10543
Small, Marvin, 1100 Park Ave., New York, NY, United States 10028
Osipow, Lloyd I., 2 Fifth Ave., New York, NY, United States 10011
Marra, Dorothea C., 107 Fernwood Raod, Summit, NJ, United States 07901

| | NUMBER | KIND | DATE |
|-----------------------|---|------|--------------|
| PATENT INFORMATION: | US 3912665 | | 19751014 |
| APPLICATION INFO.: | US 1973-324472 | | 19730117 (5) |
| DISCLAIMER DATE: | 19921014 | | |
| RELATED APPLN. INFO.: | Continuation-in-part of Ser. No. US 1971-166960, filed on 28 Jul 1971, now abandoned And a continuation-in-part of Ser. No. US 1970-5150, filed on 22 Jan 1970, now abandoned And a continuation-in-part of Ser. No. US 1969-797257, filed on 6 Feb 1969, now abandoned | | |
| DOCUMENT TYPE: | Utility | | |
| FILE SEGMENT: | Granted | | |
| PRIMARY EXAMINER: | Foelak, Morton | | |
| NUMBER OF CLAIMS: | 30 | | |
| EXEMPLARY CLAIM: | 1 | | |
| LINE COUNT: | 1252 | | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Foam structures such as applicator pads for cleaning and other purposes are provided, that are formed from emulsified propellant compositions including a synthetic polymer in solution in a low boiling propellant and dispersed or emulsified in an organic liquid as the continuous phase. Such compositions quickly form foamed structures containing open and/or closed cells at atmospheric temperature and pressure. The structures and propellant compositions can include a material which is deposited in the pores and/or cells of the structure together with the organic liquid as the structure is formed, and which can be removed from the structure when desired. These structures are particularly suitable for use as applicator pads having a porous surface with a high proportion of open area, with a material such as a **cosmetic**, **pharmaceutical**, detergent, anti-microbial agent or abrasive which is contained in the pores thereof, and which can be removed.

The emulsified propellant compositions are stored in closed containers capable of withstanding an internal pressure sufficient to keep the propellant in the liquid phase at atmospheric temperature, and when the composition is withdrawn from the container to atmospheric pressure, the propellant volatilizes rapidly, and the foamed structure is formed within a few seconds.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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=> d his

10/052,158

FILE 'USPATFULL' ENTERED AT 09:43:59 ON 29 SEP 2003

L1 388649 S FILM(P) FORM?

L2 16148 S VINYL POLYMER?

L3 220652 S COSMETIC? OR ANTIMICROBIAL? OR PHARMACEUTICAL?

L4 153778 S WATER SOLUBLE OR WATER-SOLUBLE

L5 7747 S L1 AND L2

L6 1171 S L3 AND L5

L7 671 S L4 AND L6

L8 101 S WATER SOLUBLE(P) AMINE?(P) VINYL POLYMER?

L9 5 S L7 AND L8

L10 2533 S VINYL POLYMER?/CLM

L11 11550 S FILM FORMING?/CLM OR FILM-FORMING?/CLM

L12 176 S L10 AND L11

L13 76 S L12 AND L3

L14 51 S L13 AND L4

L15 258408 S AMINE?

L16 43 S L14 AND L15

L17 85587 S IODINE? OR IDOPHOR?

L18 85724 S IODINE? OR IODOPHOR?

L19 7 S L16 AND L18

L20 141099 S SURFACTANT?

L21 5 S L19 AND L20

L22 10963 S DRY FILM?

L23 0 S L21 AND L22

L24 605509 S FILM?

=> s film form?/ti or film-form?/ti

31615 FILM/TI

81447 FORM?/TI

1186 FILM FORM?/TI
((FILM(W) FORM?)/TI)

31615 FILM/TI

81447 FORM?/TI

1186 FILM-FORM?/TI
((FILM(W) FORM?)/TI)

L25 1186 FILM FORM?/TI OR FILM-FORM?/TI

=> s l25 and l10

L26 20 L25 AND L10

=> s l26 and l18

L27 1 L26 AND L18

=> s l27 and l20

L28 0 L27 AND L20

=> d l27 ibib abs

L27 ANSWER 1 OF 1 USPATFULL on STN

ACCESSION NUMBER: 80:19821 USPATFULL

TITLE: Film-forming alcoholic microbicidal
teat dip and method of use thereof

INVENTOR(S): Silver, Jules, North Franklin, CT, United States
Borrows, Thomas G., East Hampton, CT, United States

PATENT ASSIGNEE(S): Masti-Kure Products Company, Inc., Norwich, CT, United
States (U.S. corporation)

| | NUMBER | KIND | DATE |
|---------------------|----------------|------|--------------|
| PATENT INFORMATION: | US 4199564 | | 19800422 |
| APPLICATION INFO.: | US 1978-944863 | | 19780922 (5) |

10/052,158

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Rosen, Sam
LEGAL REPRESENTATIVE: Murray and Whisenhunt
NUMBER OF CLAIMS: 32
EXEMPLARY CLAIM: 1
LINE COUNT: 548

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB There is provided an antimicrobial animal teat dip tincture composition and method of use thereof. The ingredients of the composition are: a microbicide, water-soluble, lower alkanol, water and lower-alkanol-soluble film-forming polymer, and a water soluble emollient. Mastitis is controlled by applying the composition to the teats of animals, and allowing the composition to dry on the teats to form a film of the polymer containing the emollient. The lower alkanol gives a very rapid and effective kill of microbes on the teats while the emollient will remain on the teats in the polymer film and prevent chapping and drying of the teats. Preferably, the composition also contains a further microbicide which remains in the polymer film and provides a residual long-term mastitis protection. Quaternary ammonia microbicide compounds provide superior results in this regard, as opposed to other conventional microbicides. The ingredients provide a freeze resistant solution.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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(FILE 'HOME' ENTERED AT 09:43:25 ON 29 SEP 2003)

FILE 'USPATFULL' ENTERED AT 09:43:59 ON 29 SEP 2003
L1 388649 S FILM(P) FORM?
L2 16148 S VINYL POLYMER?
L3 220652 S COSMETIC? OR ANTIMICROBIAL? OR PHARMACEUTICAL?
L4 153778 S WATER SOLUBLE OR WATER-SOLUBLE
L5 7747 S L1 AND L2
L6 1171 S L3 AND L5
L7 671 S L4 AND L6
L8 101 S WATER SOLUBLE(P) AMINE?(P) VINYL POLYMER?
L9 5 S L7 AND L8
L10 2533 S VINYL POLYMER?/CLM
L11 11550 S FILM FORMING?/CLM OR FILM-FORMING?/CLM
L12 176 S L10 AND L11
L13 76 S L12 AND L3
L14 51 S L13 AND L4
L15 258408 S AMINE?
L16 43 S L14 AND L15
L17 85587 S IODINE? OR IDOPHOR?
L18 85724 S IODINE? OR IODOPHOR?
L19 7 S L16 AND L18
L20 141099 S SURFACTANT?
L21 5 S L19 AND L20
L22 10963 S DRY FILM?
L23 0 S L21 AND L22
L24 605509 S FILM?
L25 1186 S FILM FORM?/TI OR FILM-FORM?/TI
L26 20 S L25 AND L10
L27 1 S L26 AND L18
L28 0 S L27 AND L20

=> s vinyl(p)polymer?/clm

10/052,158

229565 VINYL
210440 POLYMER?/CLM
L29 28268 VINYL(P) POLYMER?/CLM

=> s l29 and l25
L30 97 L29 AND L25

=> s l30 and l8
L31 0 L30 AND L8

=> s l30 and l3
L32 44 L30 AND L3

=> s l32 and l4
L33 33 L32 AND L4

=> d his

(FILE 'HOME' ENTERED AT 09:43:25 ON 29 SEP 2003)

FILE 'USPATFULL' ENTERED AT 09:43:59 ON 29 SEP 2003
L1 388649 S FILM(P) FORM?
L2 16148 S VINYL POLYMER?
L3 220652 S COSMETIC? OR ANTIMICROBIAL? OR PHARMACEUTICAL?
L4 153778 S WATER SOLUBLE OR WATER-SOLUBLE
L5 7747 S L1 AND L2
L6 1171 S L3 AND L5
L7 671 S L4 AND L6
L8 101 S WATER SOLUBLE(P) AMINE? (P) VINYL POLYMER?
L9 5 S L7 AND L8
L10 2533 S VINYL POLYMER?/CLM
L11 11550 S FILM FORMING?/CLM OR FILM-FORMING?/CLM
L12 176 S L10 AND L11
L13 76 S L12 AND L3
L14 51 S L13 AND L4
L15 258408 S AMINE?
L16 43 S L14 AND L15
L17 85587 S IODINE? OR IDOPHOR?
L18 85724 S IODINE? OR IODOPHOR?
L19 7 S L16 AND L18
L20 141099 S SURFACTANT?
L21 5 S L19 AND L20
L22 10963 S DRY FILM?
L23 0 S L21 AND L22
L24 605509 S FILM?
L25 1186 S FILM FORM?/TI OR FILM-FORM?/TI
L26 20 S L25 AND L10
L27 1 S L26 AND L18
L28 0 S L27 AND L20
L29 28268 S VINYL(P) POLYMER?/CLM
L30 97 S L29 AND L25
L31 0 S L30 AND L8
L32 44 S L30 AND L3
L33 33 S L32 AND L4

10/052,158

=> s 118 and 135
L36 0 L18 AND L35

=> s iodophor or iodine or chlorhexidine or triclosan or octenidin
336 IODOPHOR
85493 IODINE
3916 CHLORHEXIDINE
2277 TRICLOSAN
0 OCTENIDIN
L37 89669 IODOPHOR OR IODINE OR CHLORHEXIDINE OR TRICLOSAN OR OCTENIDIN

=> s iodophor or iodine or chlorhexidine or triclosan or octenidin
336 IODOPHOR
85493 IODINE
3916 CHLORHEXIDINE
2277 TRICLOSAN
146 OCTENIDINE
L38 89671 IODOPHOR OR IODINE OR CHLORHEXIDINE OR TRICLOSAN OR OCTENIDINE

=> s l38 and 135
L39 1 L38 AND L35

=> d 1 ibib abs

L39 ANSWER 1 OF 1 USPATFULL on STN
ACCESSION NUMBER: 2001:167751 USPATFULL
TITLE: Cosmetic composition comprising an aqueous dispersion of film-forming polymer particles containing 1,2-pentanediol
INVENTOR(S): Agostini, Isabelle, Chatenay Malabry, France
Cupferman, Sylvie, Paris, France
PATENT ASSIGNEE(S): L'Oreal, Paris, France (non-U.S. corporation)

| | NUMBER | KIND | DATE |
|-----------------------|------------------------|------|--------------|
| PATENT INFORMATION: | US 6296858 | B1 | 20011002 |
| APPLICATION INFO.: | US 1999-249065 | | 19990212 (9) |
| DOCUMENT TYPE: | Utility | | |
| FILE SEGMENT: | GRANTED | | |
| PRIMARY EXAMINER: | Page, Thurman K. | | |
| ASSISTANT EXAMINER: | Howard, S. | | |
| LEGAL REPRESENTATIVE: | Nixon & Vanderhye P.C. | | |
| NUMBER OF CLAIMS: | 49 | | |
| EXEMPLARY CLAIM: | 1 | | |
| LINE COUNT: | 882 | | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to the use in a cosmetic or dermatological composition which can be applied to the skin, keratin fibres, semi-mucous membranes and/or mucous membranes, of an aqueous dispersion of film-forming polymer particles combined with an antimicrobial protection system, in particular an antibacterial and/or antifungal system, comprising 1,2-pentanediol. The invention relates in particular to a make-up composition for the lips or the body.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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L39 ANSWER 1 OF 1 USPATFULL on STN
TI Cosmetic composition comprising an aqueous dispersion of film-forming polymer particles containing

1,2-pentanediol

AB The invention relates to the use in a **cosmetic** or dermatological composition which can be applied to the skin, keratin fibres, semi-mucous membranes and/or mucous membranes, of an aqueous dispersion of film-forming polymer particles combined with an **antimicrobial** protection system, in particular an antibacterial and/or antifungal system, comprising 1,2-pentanediol. The invention relates in particular to a make-up composition.

SUMM The present invention relates to a **cosmetic** or dermatological composition which can be applied to the skin, semi-mucous membranes, mucous membranes and/or keratin fibres. This composition comprises . . .

SUMM It is advantageous to use an aqueous dispersion of film-forming polymer particles in **cosmetic** or dermatological compositions, as shown, for example, by Japanese patent applications H8-225,433 and H8-225,434 and patent applications EP-A-8,679,384, EP-A-0,687,461 and.

SUMM It thus proved to be necessary to develop **antimicrobial** protection for **cosmetic** and dermatological compositions containing an aqueous dispersion of film-forming polymer particles.

SUMM The development of an **antimicrobial** protection system for this type of composition has been complicated by many constraints regarding the choice of **antimicrobial** agents, and in particular;

SUMM legal constraints, since the **antimicrobial** agents selected need to be authorized for an application on mucous membranes and semi-mucous membranes;

SUMM solubility constraints: in the absence of a fatty phase in the formulation, the **antimicrobial** protection system must be totally **water-soluble**;

SUMM implementation temperature constrains: the water-solubility of the **antimicrobial** agent must be complete under cold conditions, since the formulation does not tolerate heating: when an aqueous dispersion of polymer. . . .

SUMM pH constraints; the **antimicrobial** protection system must be effective at the pH of the formulation, and in particular at pH values of from 6. . . .

SUMM constraints of compatibility with the aqueous dispersion of polymer particles, which exhibits many incompatibilities; for example, **chlorhexidine**, which is generally used as a preserving agent in **cosmetics** and dermatology, cannot be used in the presence of an aqueous dispersion of polymer particles.

SUMM After having carried out many tests in order to arrive at an **antimicrobial** protection system, in particular an antibacterial and/or antifungal system, which satisfies all the above criteria, the Applicant has discovered that 1,2-pentanediol is entirely suitable for use as an **antimicrobial** agent in an aqueous dispersion of film-forming polymer particles.

SUMM 1,2-Pentanediol, also known as pentylene glycol (CTFA name) is known in **cosmetics** as a bactericidal and fungicidal agent (G. Proserpio and R. Cattaneo, **Cosmetics** and Toiletries, It. Ed., No. 3/1996, 11-13, 16-19) and as a skin moisturization regulator (patent application WO-A-95/01151). It is also described for the topical treatment of the skin and the scalp, on account of its **antimicrobial** effect, in patent application WO-A-97/30692.

SUMM Thus, one subject of the invention is the use, in a **cosmetic** or dermatological composition which can be applied to the skin, keratin fibres, semi-mucous membranes and/or mucous membranes, of an aqueous dispersion of film-forming polymer particles combined with an **antimicrobial** protection system, in particular an antibacterial and/or antifungal system, comprising 1,2-pentanediol. . . . membranes, in particular. The facial lips and the body, of an aqueous dispersion of film-forming polymer particles combined with an

- antimicrobial protection system, in particular an antibacterial and/or antifungal system, comprising 1,2-pentanediol.
- SUMM Another subject of the invention is a cosmetic or dermatological composition which can be applied to the skin, keratin fibres, semi-mucous membranes and/or mucous membranes, comprising an aqueous dispersion of film-forming polymer particles combined with an antimicrobial protection system, in particular an antibacterial and/or antifungal system, comprising 1,2-pentanediol.
- SUMM . . . a make-up composition for the lips or the body comprising an aqueous dispersion of film-forming polymer particles combined with a antimicrobial protection system, in particular an antibacterial and/or antifungal system, comprising 1,2-pentanediol.
- SUMM Another subject of the invention is a process for the antimicrobial protection of a composition containing an aqueous dispersion of film-forming polymer particles, which consists in introducing into the composition an antimicrobial protection system, in particular an antibacterial and/or antifungal system, comprising 1,2-pentanediol.
- SUMM . . . containing either a carboxylic acid- or carboxylate group, or a sulphonic acid or sulphonate group, or alternatively a neutralizable tertiary amine group or a quaternary ammonium group.
- SUMM The antimicrobial protection system according to the invention comprises:
- SUMM The composition can also comprise at least one water-soluble dye and/or at least one pigment, and/or at least one filler and/or at least one pearlescent agent, which are conventionally used in the cosmetics and make-up field.
- SUMM Among the water-soluble dyes which may be mentioned are the disodium salt of ponceau, the disodium salt of alizarin green, quinoline yellow, the . . .
- SUMM . . . such as polyurethane, a natural gum such as xanthan gum, spreading agents, dispersing agents, antifoaming agents, UV screening agents, fragrances, cosmetic, pharmaceutical or dermatological active agents, vitamins and their derivatives, biological materials and their derivatives, surfactants for dispersing the pigments, waxes or oils.
- SUMM . . . temporary or semi-permanent tattoo. An application in the field of care compositions, antisun compositions or self-tanning compositions, dermatological compositions or pharmaceutical compositions to be applied to the skin, semi-mucous membranes and/or mucous membranes may also be envisaged.
- DETD The tests of antimicrobial efficacy carried out on this formulation by the artificial contamination test or "Challenge-test" on 6 microorganisms at 2 days, 7 days and 14 days, at room temperature, showed that the antimicrobial protection imparted by the system: sodium methyl p-hydroxybenzoate (0.4%), ethyl alcohol (5%) and 1,2-pentanediol (3%) was satisfactory since all of. . .
- DETD Formulations with the same composition as that of Example 1 were also tested, the amounts of the constituents in the antimicrobial protection system being varied as indicated below.
- | | | | | |
|-------------|--------------------------|-------|----------------------|--------------|
| DETD | Sodium | | | |
| | methyl 1,2- | | | |
| | p-hydroxy- Pentane- | Ethyl | Antimicrobial | |
| Formulation | benzoate | diol | alcohol | protection |
| Ex. 2 | 0.4% | 5% | -- | acceptable |
| Ex. 3 | 0.4% | 5% | 5% | satisfactory |
| Ex. 4 | 0.4% | 5% | 3% | satisfactory |
- DETD The antimicrobial protection was evaluated in the same way as in Example 1, on the same microorganisms.
- DETD The antimicrobial protection is acceptable if not more than 2 of the 6 microorganisms tested are decontaminated only after 14 days. It. . .

- DETD The results are indicated below. They show that the **antimicrobial** protection systems in the formulations of Examples 2 to 4 according to the invention give these formulations, surprisingly, effective **antimicrobial** protection despite the small amount of preserving agent used, i.e. of 0.4% of sodium methyl p-hydroxybenzoate.
- DETD Formulations of the same composition as that of Example 1 were tested, but replacing the **antimicrobial** protection system of the invention with conventional preserving systems as indicated below.
- DETD The **antimicrobial** protection of the formulations was evaluated by the artificial contamination test of "Challenge-test", as in the above examples, on the . . .
- DETD The tests of **antimicrobial** efficacy carried out on the formulations containing standard preserving systems showed that the **antimicrobial** protection imparted by these preserving systems was insufficient, even when chlorohexidine digluconate was used, which is known to be an . . .
- CLM What is claimed is:
1. A method of plasticizing film-forming polymer particles and preventing microbial growth in a **cosmetic** or dermatological composition which can be applied to any one of the skin, keratin fibres, semi-mucous membranes and mucous membranes, comprising combining a **cosmetic** or dermatological composition comprising an aqueous dispersion of film-forming polymer particles with an **antimicrobial** protection system comprising 1,2-pentanediol.
 - . . up, protecting and/or non-therapeutically treating any one of the skin, keratin fibres, semi-mucous membranes and mucous membranes, comprising applying a **cosmetic** or dermatological composition comprising an aqueous dispersion of film-forming polymer particles combined with an **antimicrobial** protection system comprising 1,2-pentanediol, to said skin, keratin fibres, semi-mucous membranes or mucous membranes.
 - . . semi-mucous membranes or mucous membranes which is at least one of non-sticky after drying, transfer-resistant and long-lasting comprising applying a **cosmetic** or dermatological composition comprising a film-forming polymer particles and 1,2-pentanediol to said skin, keratin fibres, semi-mucous membranes or mucous membranes.
 - . . a blusher, an eyeshadow, a mascara, an eyeliner, a nail varnish, a care composition, an antisuon composition, a dermatological or **pharmaceutical** composition to be applied to the skin, semi-mucous membranes, or mucous membranes, or a self-tanning composition.
 6. The method of claim 1 wherein said film-forming **polymer** is selected from the group consisting of anionic polyurethanes, cationic polyurethanes, nonionic polyurethanes, amphoteric polyurethanes, acrylic polyurethanes, polyurethane-polyvinylpyrrolidones, polyester-polyurethanes, polyether-polyurethanes, polyureas, polyurea-polyurethanes, polyesters, polyesteramides, fatty-chain polyesters, polyamides, epoxy ester resins, acrylic **polymers** and copolymers, **vinyl polymers** and copolymers, acrylic/**vinyl** copolymers, acrylic/silicone copolymers, nitrocellulose/acrylic copolymers, **polymers** of natural origin, modified **polymers** of natural origin, **polymers** resulting from the radical **polymerization** of one or more radical monomers, inside and/or partially at the surface of pre-existing particles of at least one **polymer** selected from the group consisting of polyurethanes polyureas, polyesters, polyesteramides and alkyds, and mixtures thereof.

7. The method of claim 6, in which the film-forming **polymer** is selected from the group consisting of acrylic **polymers** and copolymers, vinyl **polymers** and copolymers and acrylic/vinyl copolymers.
11. The method of claim 1 wherein the **antimicrobial** protection system comprises 0.1 to 10% by weight of 1,2-pentanediol, and at least one of 0 to 5% by weight.
12. The method of claim 11 wherein the **antimicrobial** protection system comprises 1 to 1% by weight of 1,2-pentanediol, and at least one of 0.05 to 2% by weight.
13. The method of claim 12 wherein the **antimicrobial** protection system comprises 3 to 5% by weight of 1,2-pentanediol, and at least one of 0.2 to 1% by weight.
14. A **cosmetic** or dermatological composition which can be applied to any one of the skin, keratin fibres, semi-mucous membranes and mucous membranes, comprising an aqueous dispersion of film-forming polymer particles combined with an **antimicrobial** protection system comprising 1,2-pentanediol.
- .. . is in the form of a make-up composition, a care composition, an antisun or self-tanning composition or a dermatological or pharmaceutical composition, to be applied to the skin, keratin fibres, semi-mucous membranes or mucous membranes.
18. The composition according to claim 14 wherein the film-forming **polymer** is selected from the group consisting of anionic polyurethanes, cationic polyurethanes, nonionic polyurethanes, amphoteric polyurethanes, acrylic polyurethanes, polyurethane-polyvinylpyrrolidones, polyester-polyurethanes, polyether-polyurethanes, polyureas, polyurea-polyurethanes, polyesters, polyesteramides, fatty-chain polyesters, polyamides, epoxy ester resins, acrylic **polymers** and copolymers, vinyl **polymers** and copolymers, acrylic/vinyl copolymers, acrylic/silicone **polymers**, nitrocellulose/acrylic copolymers, **polymers** of natural origin, which are optionally modified, **polymers** resulting from the radical **polymerization** of one or more radical monomers, inside and/or partially at the surface of pre-existing particles of at least one **polymer** selected from the group consisting of polyurethanes, polyureas, polyesters, polyesteramides and alkyds, and mixtures thereof.
19. The composition according to claim 18, wherein the film-forming **polymer** is selected from vinyl **polymers** and copolymers, acrylic **polymers** and copolymers and vinyl /acrylic copolymers.
23. The composition according to claim 14 wherein the **antimicrobial** protection system comprises 0.1 to 10% by weight of 1,2-pentanediol, and at least one of 0 to 5% by weight.
24. The composition according to claim 23, wherein the **antimicrobial** protection system comprises 1 to 7% by weight of 1,2-pentanediol, and at least one of 0.05 to 2% by weight.
25. The composition according to claim 24, wherein the **antimicrobial** protection system comprises 3 to 5% by weight of 1,2-pentanediol, and at least one of 0.2 to 1% by weight.
26. The composition according to claim 14, further comprising at least one of a **water-soluble** dye, a pigment, a filler and a pearlescent agent.
- .. . further comprising at least one additive selected from the group consisting of thickeners, dispersing agents, antifoaming agents, oils,